Community Health Risk Factor Management Research Project

Summary of Key Findings
February 2008

Centre for Primary Health Care and Equity, UNSW

"Research that makes a difference"

Funded by the NSW Department of Health

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Background

Chronic diseases account for more than 80% of the overall disease burden and almost 50% of all deaths in Australia [1]. Lifestyle risk factors such as smoking, nutrition, alcohol and physical activity (SNAP) have been identified as the main preventable risk factors for chronic diseases in Australia and worldwide [1]. Along with general practitioners, community health services are in an ideal position to deliver brief interventions to reduce the risk of chronic disease. While there has been much support in recent government policies and plans for risk factor management within primary health care [2-6], little is known about how to make risk factor management a core element of the work of community health services.

To address this question, the Strategic Research and Development Branch, Centre for Health Advancement, NSW Department of Health funded the Community Health Risk Factor Management Research Project which was managed by the Centre for Primary Health Care and Equity, UNSW.

Project Aims

The Project aimed to increase the capacity of community health services to address chronic disease risk factors as part of their normal clinical work. The project focused on following lifestyle risk factors for chronic diseases:

Smoking

Nutrition

Alcohol

Physical Activity

The project had four main objectives corresponding to the four main stages of the project:

1. To ***identify the scope*** for evidence based risk factor management in selected community health teams
2. To ***develop and implement model/s*** of risk factor management that will increase the rate of evidence based risk factor management (within the agreed scope) in selected community health teams
3. To describe the ***factors which influence the uptake of the model/s***, rate of evidence based risk factor management, and the ability to sustain these overtime, and
4. To examine the ***transferability of risk factor management model/s*** across community health teams, and implications for capacity building and service development within community health teams / Area Health Services (AHS).

Why Community Health?

Community Health Services:

- are the second largest provider of health services to the general population, after GPs (24.5 million services per year) [10]
- consist of a diverse health workforce (community nursing, child & family, allied health, Aboriginal health workers, drug & alcohol, mental health)
- often access hard to reach groups
- adopt a holistic approach to health care
- have multiple contacts with clients who are often seen in their own home
- provide good links to local community support programs, and
- offer potential for partnerships with GPs.

Methods

Study Sites

The project was a collaborative feasibility study involving two Area Health Services and three community health teams:

- a generalist community nurse team in a metropolitan area (n=35, team 1)
- a co-located multi-disciplinary community health team in a rural area (n=15, team 2)
- a multi-disciplinary primary health care team working in rural and remote communities (n=10, team 3)

Study Design

The study used an action research methodology of working collaboratively with participating teams. An initial needs assessment was undertaken to inform the development of risk factor management models suited to each team. Models were then piloted over a six month period. This was followed by an evaluation phase to examine the impact of models on practice and factors influencing uptake of these approaches (Figure 1).

Executive Summary

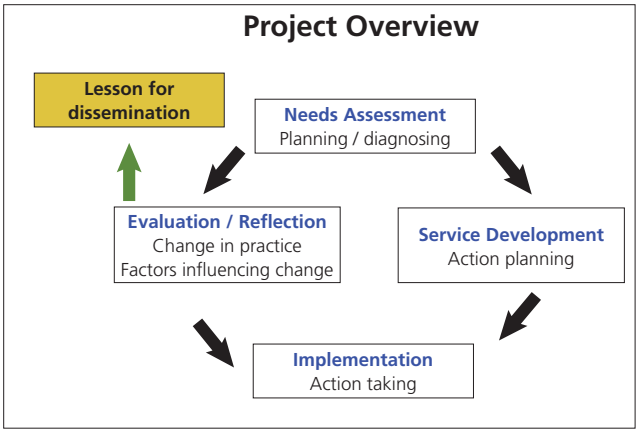


Figure 1. Project stages and the action research cycle

Data Collection and Analysis

The study involved both quantitative and qualitative research methods. This included:

- **A Clinician survey** which provided a pre and post measure of risk factor management practices, perceived knowledge, confidence and attitudes
- **A Prospective client audit** which was undertaken by clinicians with all clients (over 18 years of age) over a two week period at baseline and again post intervention. This acted as another measure of risk factor management practices.
- **Semi-structured interviews** with participants at the initial needs assessment phase (stage 1 n=29) and as part of the evaluation (stage 3 n=30) to explore participants views and experiences of undertaken risk factor management in routine practice.
- **Client survey** (n=181) to examine acceptability of risk factor screening and intervention, recall of lifestyle advice and self reported lifestyle change.
- **Client focus groups** (n=2) to explore clients' perceptions of community nursing services and the appropriateness of having lifestyle risk factors addressed as part of routine care

Key Findings

Needs Assessment Findings:

- The three pilot services were found to be an appropriate setting for risk factor management. This finding may be applicable to community health services in general due to their access to the population, continuity of care and congruence between risk factor management and clinician roles and service priorities.
- Models of risk factor management should be tailored to each community health teams' way of working and specific models may be required for different health professional types, and
- Building capacity of community health services or teams to implement and sustain risk factor management practices will require clinician training and support in all aspects of risk factor management in particular behaviour change principles, the provision of clinician and client resources, improved awareness and access to referral services and organisational support.

Models of Risk Factor Management

The predominant model agreed upon for teams one and two was the provision of brief individual intervention provided as part of routine clinical care, with referral onwards for additional support where appropriate. Team three had adopted a broader approach to addressing risk factors which encompassed individual intervention, group education programs that included SNAP risk factors as well as community programs and health promotion strategies such as establishing walking groups (Figure 2). Models developed were seen to fit with the current ways of working for each team.

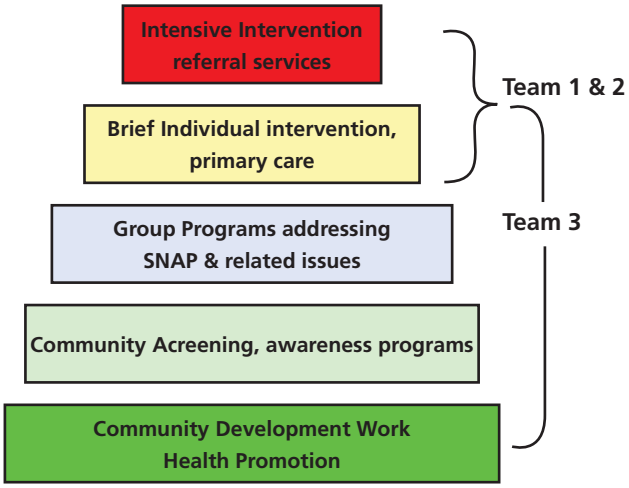


Figure 2. Key intervention approaches to addressing risk factors

As part of the model development process tools and resources were provided to support teams to integrate risk factor management into their work, these included:

- ✔ integration of screening questions for SNAP into the standard assessment process
- ✔ improving links with referral services such as Heartmove Programs and providing clinicians with local referral directories and referral forms such as Quitline
- ✔ a practical guide for clinicians "Helping People Change"
- ✔ provision of portable resource kit of client education materials (Figure 3)
- ✔ provision of risk factor training sessions for staff with a strong emphasis on behaviour change principles such as motivational interviewing;
- ✔ integrating risk factor management fields into CHIME (clinical information system used by the teams) to record and monitor risk factor practices

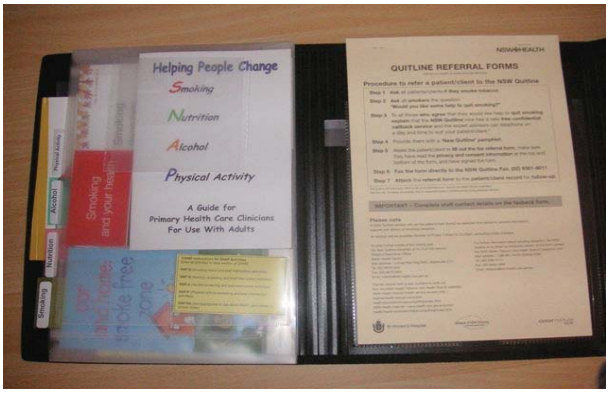


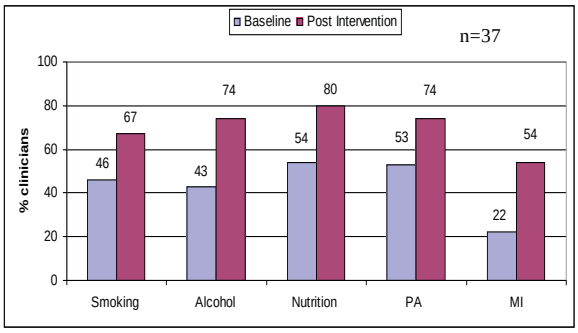
Figure 3. Portable resource folder

Feasibility of Risk Factor Management Models:

- Individual screening and intervention was feasible and acceptable to most community nursing staff but was less feasible for some allied health clinicians due to the small number of relevant clients seen and high caseloads.
- Inclusion of SNAP screening tools in the standard assessment process was important in prompting clinicians to undertake screening
- While risk factor management models need to be tailored to teams' way of working, all models should provide ongoing training for staff clinician and client resources and a mechanism for systematic recording and reporting on risk factor activities, and
- Further improvements are required to make the recording of risk factor activities in clinical information systems workable in practice.

Impact on Clinician Knowledge, Confidence and Attitudes

The project resulted in an increase in clinician knowledge and confidence across all aspects of risk factor management (Figure 4).



* P<0.01 for all categories except smoking recommendations (non significant). PA=physical activity

Figure 4. Percentage of clinicians rating confidence in intervention as good/excellent

Positive changes in some clinician attitudes were also identified in particular perceptions of client acceptance and perceived effectiveness, although beliefs about effectiveness remained low, especially for smoking and alcohol (Figure 5).

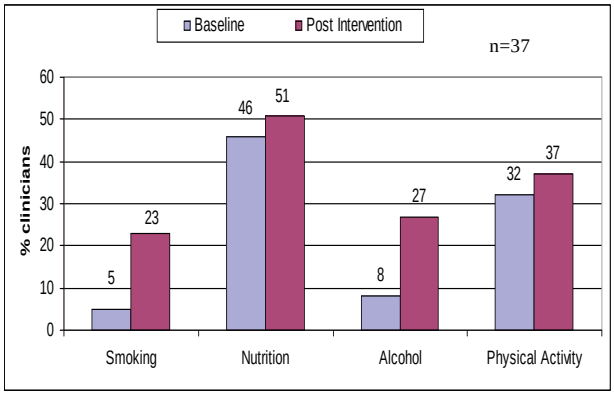
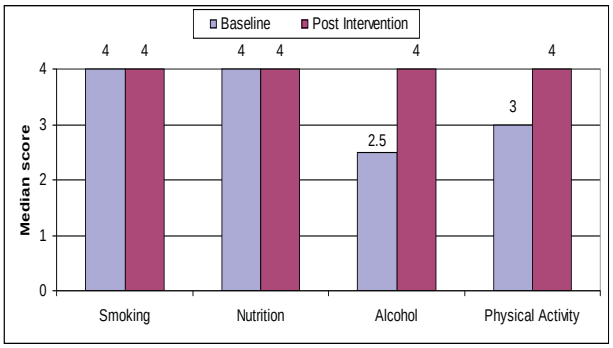


Figure 5. Percentage of clinicians rating effectiveness of helping clients change as high

Impact on Clinician Risk Factor Management Practices

Rates of screening increased for alcohol (statistically significant) and physical activity (approached significance). There was no change in screening for nutrition and smoking which were high at baseline and post intervention (Figure 6). However levels of intervention remained unchanged except for alcohol which increased. Overall 38% (n=13) of clinicians improved screening scores and 33% (n=11) improved intervention scores following the project (Figure 7).



P<0.05 for alcohol, P=0.055 for physical activity

Figure 6. Median screening scores for lifestyle risk factors

Screening score represents the proportion of new clients ask about each risk factor over the previous 2 weeks: 0=none, 1= 1-25%, 2=26-50%, 3=51-75%, 4= >75%.

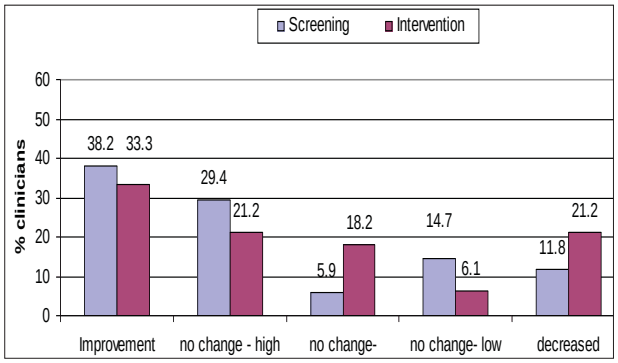


Figure 7. Proportion of clinicians changing screening and intervention practices

Improvement = increase in score by one or more quartiles

No change high = 4th quartile for scores at baseline and post intervention

No change moderate = 2nd or 3rd quartile for scores at baseline and post intervention

No change low = 1st quartile for scores at baseline and post intervention

Decrease = decrease in score by one or more quartiles

Interviews with clinicians suggested that the project increased their awareness and capacity to address risk factors and it formalised screening and intervention as part of routine care.

"I think (a) we're asking the questions more often and (b) we've got the backup information. So I think the last six months we're doing it much better" (team 1).

Factors Influencing Risk Factor Management Practices

Factors influencing risk factor management practices were identified at client, clinician, team/organisational and community levels. Key enablers and barriers are listed below:

Perceived Enablers:

- clinicians identify themselves as facilitators of lifestyle change
- continuity of care
- good clinician knowledge and confidence
- clinician awareness and access to resources and support services
- clinician belief that risk factor intervention was relevant and valuable
- clinicians' own healthy lifestyle habits
- good fit with clinician role
- holistic approach to care with an early intervention/ prevention focus
- management support
- good fit with team and organisational priorities
- staff involvement and ownership over the change process
- clinician champion/representative
- support for service changes facilitated by project officer and the UNSW research team

"It does fit with your role. Instead of just looking at the client now and their illness, looking at the factors that have brought them to that point or the fact that some of those risk factors like smoking and drinking that are going to hinder their recovery" (nurse).

Perceived Barriers:

- inappropriate client target group
- lack of perceived client motivation
- short term contact with clients
- depression, language or cognitive barriers with clients
- clinician belief that risk factor intervention was not worthwhile due to the limited scope to make a difference
- clinicians' own unhealthy lifestyle habits
- limited scope to address risk factors as part of the job role (allied health)
- time and caseload
- task or problem orientated approach to care
- increased focus on post acute care
- concurrent changes in services at time of project implementation

«"..increased focus on provision of post acute care, well that certainly is a key challenge I think because while we are trying to do projects like this, a lot of prime intervention, we are getting more things coming out of hospital, having to take more things over from hospitals so the acuity is going up so it's a real balancing act between the two I think" (manager).

Client Acceptability

Community health staff were seen by clients as an appropriate and reliable source of support for lifestyle change. For clients surveyed, 91% agreed or strongly agreed with community health staff asking about lifestyle risk factors and 87% agreed or strongly agreed with community health staff offering intervention for lifestyle risk factors where appropriate

The role of the community nurse in addressing lifestyle issues was explored in two client focus groups. All participants except one supported the provision of risk factor management by community nurses, citing the following reasons:

- community nurses have a comprehensive understanding of client needs
- community nurses are part of a team whose goal is to assist the client to achieve a better health outcome

- addressing lifestyle issues is part of overall care of presenting issue
- community nurses are trained health professionals with the knowledge and skills to help clients change their lifestyle
- community nurses are advocates who can refer clients on to other services for help, and
- community nurses are an alternative service provider for individuals who may be disinclined to visit a GP.

"…your community nurse comes in and out of your home, she knows what's going on in the home…"

"I think it shows they're caring for your wellbeing. It's not a regular thing they do every visit but they just ensure that you're looking after yourself ..they're caring for our welfare which they do admirably."

They qualified their support for risk factor management in the nursing role suggesting client screening was feasible but brief interventions less so because nurses generally lacked the required time.

Client Outcomes

Between 43-66% of 'at-risk' clients recalled having received help in changing their lifestyle from community health staff over the past month, with 60% of all clients recalling receiving help for at least one risk factor.

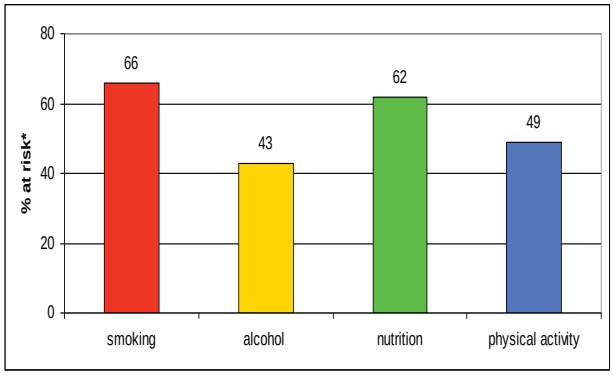


Figure 8. Proportion of at risk* clients recalling receiving lifestyle advice. (* at risk estimated by the client)

A higher proportion of clients who recalled receiving lifestyle advice over the past month reported making lifestyle changes compared to those who did not recall receiving advice. A total of 89% of clients were 'very satisfied' with help received by community health staff in addressing lifestyle risk factors. Client survey results require confirmation with a larger sample and using different study design.

Sustainability

Our findings indicate that a system level approach is required for risk factor management practices to be supported and sustained beyond the initial pilot. This could include:

- integration with other initiatives and programs at the state and area health service level
- integrating risk factor management into community health job descriptions and orientation processes
- a systematic approach to providing ongoing training and resources for clinicians
- refinement of recording and reporting processes for risk factor activities using existing clinical information systems
- the development and reporting of key performance indicators for prevention and risk factor management as part of health service delivery
- the development of systems for proactive follow up and increasing links to GPs and support services
- strengthening community resources available to support lifestyle change through collaboration with local stakeholders including referral services, divisions of general practice and population health services.

"..the work we do on this has to be ..become part of the work we are doing in the chronic disease areas. It's got to be part of how we position our community based health services. It needs to link into the whole issue of the 'older person journey' 'clinical re-design'" (manager).

Study Limitations

This study has a number of limitations that need to be considered in the interpretation of the findings.

- The project involved only three community health teams within two AHS, it is uncertain the extent to which the findings would apply more broadly to other community health teams.
- The inability to monitor risk factor management practices overtime using existing data collection systems. Instead we had to rely on a cross sectional snap shot of practices at the beginning and end of the project to gauge impact of the project on practices.
- The relatively short implementation period of six months and lack of data about sustainability of risk factor management practice.

Practice and Policy Options

Incorporating Risk Factor Management into Routine Practice

This might involve:

- including chronic disease prevention and management activities such as risk factor management in community health service job descriptions
- improving the way risk factor activities are recorded in clinical information systems to provide prompts for clinicians, facilitate retrieval of risk factor information and improve access to systems at the point of clinical care.
- taking a systematic approach to the provision of ongoing professional development and client education resources for community health clinicians in the area of risk factor management
- giving specific positions within community health, such as clinical nurse consultants, the responsibility for monitoring and supporting risk factor management, and
- ensuring health promotion activities remain part of the community nursing role, particularly given the increasing focus on the provision of post acute care for community nursing staff.

Monitoring

This might involve:

- monitoring the reach of risk factor screening and intervention by teams/services and feeding back to clinicians and managers on a regular basis as well as including outcomes as part of quality improvement initiatives such as accreditation
- making health managers accountable for the reach of risk factor screening and intervention by community health teams
- the routine collection of client outcome data, either through the inclusion of risk factor management questions as part of client satisfaction surveys or through clinical information systems such as CHIME, and
- implementing systems to promote the follow up of clients who have received an intervention. This could include a process of flagging clients in clinical information systems and sending a letter to the clients' general practice to promote follow up in future consultations.

Partnerships

This might involve:

- collaboration between community health services, divisions of general practice/and population health/ health promotion services to support risk factor management activities in primary health care at the local level. This may take the form of collaboration in the maintenance of referral directories, provision of training to clinicians or establishment and maintenance of support services, and
- developing formal links with general practice such as through the use of care plans to encourage follow up of clients having received lifestyle intervention.

National and State Level

Professional Development

This might involve:

- developing core competencies for risk factor management and standardised training programs, and
- including chronic disease prevention and management in undergraduate training programs for all clinicians.

Integration with Other Programs and Initiatives

This might involve:

- integrating risk factor management with other relevant initiatives and programs such as chronic disease management strategies /programs /policies and HealthOne NSW
- the use of standardised assessment tools in community health services (such as the Ongoing Needs Identification tool (ONI) and inclusion as part of clinical re-design initiatives in AHS), and
- the dissemination of Lifescript materials adapted for use in community health services to provide consistency of messages to clients within primary health care.

Monitoring

This might involve:

- developing key performance indicators for chronic disease prevention and management activities such as risk factor management and including these in accountability systems (from clinician to AHS level) in a way that reflects the NSW Department of Healths' commitment to risk factor management, and
- improving the way risk factor activities are recorded in clinical information systems to allow the extraction of data on the reach of screening and intervention at the service, AHS and state level.

Partnerships:

This might involve:

- encouraging collaboration between community health services and population health/health promotion services in support of risk factor management activities, and
- strengthening partnerships between commonwealth and state funded services such as between general practice and state community health services. This may involve developing effective models of collaboration between practice nurse and state funded community health nurses in the area of chronic disease prevention and management.

Conclusion

To our knowledge this is the first study to develop and test models of risk factor management within the Community Health Services sector in Australia. Our findings support community health services as an appropriate setting to address lifestyle risk factors. However due to the diverse nature of service delivery, models of intervention may need to be tailored to the team or disciplines way of working. Risk factor management practices are complex and are influenced by a range of factors including client, clinician and broader organisational issues. Changing clinician practices is likely to take time and require sustained system level support, particularly given the high turnover of staff within this setting. Integration with other initiatives and programs along with strong organisational commitment is likely to be required to make risk factor management 'core business' for community health services.

Acknowledgments

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Research Team

Ms Rachel Laws (Project Leader), A/Prof Gawaine Powell Davies, Anna Williams, Dr Rosslyn Eames-Brown, Ms Cheryl Amoroso and Prof Mark Harris

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For a copy of the full project report or any further information, please contact:
Rachel Laws,
UNSW Project Leader.
ph: 9385 1488,
r.laws@unsw.edu.au
www.cphce.unsw.edu.au